DESCRIPTIONS OF NEW HESPERIIDÆ FROM TRINIDAD, B. W. I., AND SOUTH AMERICA (LEPIDOPTERA-RHOPALOCERA)

By E. L. Bell

Cobalus mubevensis new species, (Plate XXXX, Fig. 1).

Male. Upper side. Dark brown with a reddish sheen on both wings and olivaceous hairing at the base. Primaries with six white-hyaline spots: a sagittate spot in interspace 2, just before the center of the vein and extending across the interspace, beyond this, in interspace 3 is an oblong spot extending nearly across the interspace, two small spots in the cell toward the end, one on the upper and one on the lower margin, two very minute subapical spots.

Beneath. Both wings slightly paler brown than above and with a threadlike pale terminal line. Primaries with the spots of the upper side repeated and a lighter area at the anal angle. Secondaries with two very minute white discal spots and one in the cell-end.

Fringes brown, paler at the tip. Body, above blackish with olivaceous hairing, beneath, greenish on the thorax, the abdomen pale brown with a double yellow line. Legs brown. Head greenish. Palpi above black and fulvous, beneath mostly fulvous with some black hairs intermixed. Pectus greenish and brown. Collar, shoulder-covers and tegulæ greenish-brown. Antennæ black above, beneath black minutely scaled with yellow at the joints, the club and apiculus yellow.

Female. Similar to the male, the spots of the primaries larger and an additional small whitish spot on vein 1 a little beyond the center and also one more subapical spot. The spots on the underside of the secondaries remain extremely minute as in the male.

Expanse: male, 34 mm.; female, 40 mm.

Type material. Holotype male, Mubevo, Paraguay, December; allotype female, Massaranduba-Blumenau, Brazil, in collection of the author.

The male of this species bears some resemblance to the Draudt figure (Seitz, Macrolep. of the World, vol. 5, pl. 185 i) of *Cobalus* "trimaculata" (trimaculatus) Plotz, but it is smaller and the spots of the primaries are also somewhat smaller, that in interspace two being sagittate, not triangular, and has the small subapical spots which are lacking in trimaculatus. There is a

specimen in the writer's collection which is identified as *trimaculatus* and which very closely agrees with the Draudt figure referred to and which is a *Rhinthon* and not a *Cobalus*.

Oenus kayei new species. (Plate XXXX, Fig. 2).

Male. Upper side. Primaries and secondaries immaculate, brown. Fringes concolorous, slightly paler at the tip.

Beneath. Paler brown than above, primaries have a hazy suggestion of discal and subapical spots, outside of which the color of the wing is paler than toward the base, anal angle paler, a short yellow streak at the base on the under side of the costal vein. Secondaries paler in the disc which is crossed in the center by a darker brown band.

Body brown above, paler brown beneath. Legs dark brown with some yellowish hairs on the anterior and posterior femora. Head with brown and yellowish-brown hairs. Palpi brown at the tip, greyish beneath. Pectus greyish. Antennæ black above, beneath black except the club is yellow and the apiculus red.

The stigma of the primaries is a short narrow stripe on the upper side of vein 2 slanting across the angle, a short piece below vein 2 slightly oblique and a longer stripe below this to vein 1; it is similar to that shown in the Biologia Cent.-Amer., plate 98, figure 40, as *Oenus pyste* Godman.

Expanse: 36 mm.

Type material. Holotype male, Trinidad, B. W. I., April 10, in collection of the author.

Named for Mr. W. J. Kaye, F.E.S., of London, England.

This species seems to differ in superficial appearance from any of the species in the genus mentioned by Draudt, in Seitz, Macrolep. of the World.

Perimeles stollmeyeri new species, (Plate XXXX, Fig. 3).

Male. Upper side. Primaries brown sprinkled with fulvous scales, heaviest toward the base. Secondaries brown, the discal and basal area with fulvous hairs.

Beneath. Primaries paler brown along the costa, apical area and outer margin, the stigma of the upper side prominently shown on this side and from this to the base blackish, some yellow hairs in the cell and on the costal margin. Secondaries immaculate, very pale brown with a lilacine tint.

Fringes greyish. Thorax above olive-greenish, abdomen brown, beneath greyish. Head greenish and yellow hairs. Palpi brownish at the tip, beneath yellowish white with a few black hairs. Pectus yellowish-white. Legs pale brown and grey. Antennæ black above, beneath spotted with yellow at the joints and a yellow spot in the basal half of the club.

Expanse: 28 mm.

Type material. Holotype male, Pt. of Spain, (Botanical Gardens), Trinidad, B. W. I., April, in collection of the author.

Named for Mr. C. Rex. Stollmeyer, of Pt. of Spain, Trinidad. The stigma of the primaries is of the same general form as that of *Perimeles remus* Fabricius, consisting of a stripe extending along the median vein from the rise of vein 3 to vein 2, a short piece just below vein 2 and another piece below that to vein 1.

This species while of the same general wing shape as *remus* differs a great deal in coloration from that species, however, the form of the genitalia is very much the same, the extremely long saccus and ædæagus with split termination, the uncus and the form of the short clasper is quite similar in both.

Eutychide insulanus new species, (Plate XXXX, Fig. 4).

Male. Upper side. Primaries and secondaries brown. Primaries with four white-hyaline spots: a narrow one between veins 2 and 3 extending from just below the rise of vein 3 almost to vein 2, a roundish one between veins 3 and 4 just beyond the cell-end, two small subapical spots, the lower one slightly the larger.

Beneath. Primaries have the spots of the upper side repeated, the extreme costal margin edged with black, below this almost to the cell red, a paler spot about the center of the costa and another above the subapical spots, below the apex overscaled with lilacine, the rest of the wing brownish with a white streak between veins 1 and 2. Secondaries red, the basal half lightly overscaled with lilacine as is also the outer margin below the outer angle, leaving a red band across the center of the wing, abdominal fold brown.

Fringes brown, slightly paler than the wings. The body is rubbed but appears to have been brown above, beneath brown, the abdomen yellow with a brown stripe in the center. Head dark brown with some red-fulvous hairs at the sides and behind the eyes. Palpi dark brown at the tip, beneath fulvous and dark brown intermixed, red-fulvous at the sides. Pectus dark brown with some fulvous hairs. Legs dark brown with fulvous scales and hairs. Antennæ black above, below black with a yellow spot at the base of the club and one at the base of the apiculus.

The stigma of the primaries is of the form typical of this genus. Expanse: 26 mm.

Type material. Holotype male, Trinidad, B. W. I., April 11, in collection of the author.

The form of the genitalia is somewhat similar to that of cin-

gulicormis Herrich-Schaffer but the claspers terminate differently. In superficial appearance insulanus differs from cingulicormis in the fewer and smaller hyaline spots and in the very different maculation of the underside of the secondaries.

Megistias ignarus new species, (Plate XXXX, Fig. 5).

Male. Upper side. Primaries and secondaries reddish-brown, primaries with three hazy subapical spots, but little paler than the ground color. Secondaries immaculate. Fringes a little paler than the wings.

Beneath. Wings slightly paler than above, primaries with two hazy, ill-defined discal spots, one between veins 2 and 3 and one between veins 3 and 4, the hazy subapical spots repeated; pale brown on the inner margin and as far as vein 2 at the anal angle; a darker submarginal line followed by a pale marginal line and a darker thread-like line at the base of the fringes. Fringes slightly paler with darker spots especially toward the apex. Secondaries a little darker than the primaries, with four hazy, ill-defined, lighter brownish spots in a curved discal row and one in the cellend; abdominal fold paler brown; the submarginal, and terminal lines and the one at the base of the fringes similar to those of the primaries.

Body brownish on both sides. Head, collar and shoulder-covers brownish with some fulvous hairs. Tegulæ brownish. Palpi brownish intermixed with fulvous. Legs brownish. Antennæ black, beneath minutely scaled yellow at the joints, the club and apiculus yellow.

Expanse: 28 mm.

Type material. Holotype male, Santa Cruz, Bolivia, in collection of the author; one male paratype, Surinam, in collection of the Academy of Natural Sciences, Philadelphia, Penna.

This is one of the small obscure insects which cannot be identified satisfactorily from either published description or figure and distinguished from many which bear a similar superficial appearance. The form of the genitalia, however, will readily identify this species.

Carystus coxeyi new species, (Plate XXXX, Fig. 6).

Male. Upper side. Primaries and secondaries dark brown; primaries with ten white-hyaline spots; two a little beyond the center of the cell one above the other, a subquadrate one in interspace 1, a larger one broader at its base than the apex crossing interspace 2 at about the center, another crossing interspace 3, a smaller one in interspace 4, and a minute one (absent in one paratype) in interspace 5, these five forming a transverse discal row, three subapical spots the lower of which is the larger and the middle one the smaller. Secondaries with a large, roundish, white spot, not sharply defined on the lower edge, this spot extends further downward

than the spot on the under side of the wing and the dark ground color showing through in this area makes it appear pale bluish. A stripe of white on the inner margin of the abdominal fold.

Beneath. Primaries with the apical half dark brownish-red, the rest of the wing blackish-brown, paler along the inner margin; spots of the upper side repeated, that in interspace I elongated and more or less notched on the outer edge. Secondaries deep brownish-red, abdominal fold brown with the inner edge rusty-red; an oblong white or yellowish-white spot across the center of the wing and lower corner of the cell, extending from the center of the inner margin of the abdominal fold to almost the outer angle and somewhat rounded at the outer end.

Body, thorax above dark brown with some greenish hairs, beneath with greenish and brownish-red hairs; abdomen above blackish-brown, beneath bright yellow. Head dark brown with a greenish reflection. Palpi blackish-brown above and beneath, rusty-red at the sides and base. Pectus blackish-brown. Shoulder-covers brown bordered exteriorly with brownish-red. Collar dark brown bordered interiorly with brownish-red. Tegulæ dark brownish. Antennæ black, the apiculus somewhat reddish beneath. Legs dark brown, striped with brownish-red or yellow. Fringes of primaries white at the anal angle and brown from there to the apex; of the secondaries white broadly crossed with dark brown at the vein ends. The male has no stigma.

Expanse: 50 mm.

Type material. Holotype male, Ecuador, one male paratype, Ecuador, one male paratype, Chanchamayo, Peru, in collection of the author; one male paratype, Ecuador, in collection of the Academy of Natural Sciences, Philadelphia, Penna.

Named for my friend, Mr. W. Judson Coxey, of Philadelphia, Penna.

This handsome species does not closely resemble any other in the genus with which the author is familiar, but the general superficial appearance and the form of the genitalia seem to ally it to *Carystus*.

Eutocus (?) illepidus new species, (Plate XXXX, Fig. 7).

Male. Upper side. Primaries and secondaries blackish-brown, immaculate.

Beneath, primaries dark brown, blackish toward the base, a little paler on the inner margin; secondaries with a reddish tinge. Fringes dark brown.

The stigma of the primaries consists of a small, inconspicuous sagittate patch in the angle at the base of interspace 2. The primaries also have a tuft of rather long hairs extending from the base of interspace 1 to about the center of the interspace.

Body above and beneath dark brown. Legs brown with a paler stripe. Head dark brown with some paler brown hairs. Collar and shoulder-covers dark brown with some paler hairs. Tegulæ dark brown. Palpi dark brown with some yellowish hairs. Pectus dark brown and yellowish. Antennæ black, yellowish at the base of the club beneath.

Expanse: 24 mm.

Type material. Holotype male, Mubevo, Paraguay, December, in collection of the author.

This is one of the small blackish species resembling *Mnasitheus simplicissimus* Herrich-Schaffer, which has no stigma, and *Mnasitheus cephis* Godman, which has a different form of stigma; from the other *Eutocus* species it may be distinguished by the form of the male genitalia. *Illepidus* may not be strictly congeneric with the other *Eutocus* species, but it seems to fit better in this genus than elsewhere.

Thracides (?) currani new species, (Plate XXXX, Fig. 8).

Male. Upper side. Primaries dark brown, with a patch of slightly longer hair-like scales below the median vein in interspace 1, and a small thickened patch of darker scales on vein 1 at about the center, forming a rather indistinct stigma. Fringes black. Secondaries dark brown with the margin above the costal vein yellow; a distinct tuft of long hairs from the base of the cell extending to the center of the wing. Fringes reddish, above the outer angle white.

Primaries, inner margin below vein 1 bright yellow, interspace 1 black in the basal third, then bright yellow in the center, then black and then red, interspace 2 is black in the basal third, then reddish-yellow, then black, and then red, interspace 3 black at the base, then dark reddishyellow, then red, the balance of the apical area of the wing is deep red with three yellow spots at the apex and several whitish stripes between the veins in front of and above the cell-end, the cell is black with a red border on the upper side, a whitish spot at the end in the upper angle and a smaller red-yellow spot in the lower angle, at the base whitish, above the cell is a bright yellow stripe extending from the base to almost the cell-end where it is extended upward to the costal margin spotlike, above this stripe the costal margin is a deep, dark red in approximately the basal half, the extreme costal edge is black from the base to the apex. Corresponding to the thickened patch of scales on vein 1 on the upper side is a slightly larger, oval area of differently formed and paler scales, which stand out noticeably and through the center of which runs vein 1.

Secondaries with the abdominal fold bright yellow, the ground color of the wing is bright brick red, in each interspace with a long white stripe, nearly as wide as the interspace, and varying in length, with a narrow, irregular line of the ground color running through them in the outer three-quarters of the wing, at the end and below the cell is an irregular area of the red ground color deeper in tone, two white stripes in the cell, the basal two-thirds of the costal margin is edged with black, prominently so just before the base, the outer angle somewhat yellowish. Fringes reddish with some dark hairs intermixed at the end of the veins, above the outer angle white.

Body above blackish, beneath the thorax has whitish hairs, the abdomen yellow. Legs fulvous. Head red-brown. Palpi above red-brown, beneath yellow at the base shading to red at the tip. Collar dark red. Shoulder-covers dark red and brown. Tegulæ blackish with a dark red edge on the outer side at the base. Pectus red-yellow. Antennæ black above and beneath in the basal two-thirds then yellow edged with black at the joints, club black, apiculus yellow.

Expanse: 50 mm.

Type material. Holotype male, Dutch Guiana, March, in collection of the author.

This insect probably does not belong in the genus *Thracides* but neither does it correspond with any other genus known to the writer and is placed here provisionally on account of the general resemblance in wing shape to some of the *Thracides* species and because in the form of the uncus, claspers and short saccus of the genitalia it also resembles some of the species in that genus.

Named for my friend Mr. C. H. Curran, of New York City.

All of the above measurements of expanse are from the center of the thorax to the apex of the primary $\times 2$.

PLATE XXXX

Figure 1. Cobalus mubevensis new species.

Figure 2. Oenus kayei new species.

Figure 3. Perimeles stollmeyeri new species.

Figure 4. Eutychide insulanus new species.

Figure 5. Megistias ignarus new species.

Figure 6. Carystus coxeyi new species.

Figure 7. Eutocus (?) illepidus new species.

Figure 8. Thracides (?) currani new species.

